

# MECHANISMS OF AGEING AND DEVELOPMENT

## AUTHOR INDEX

*Volume 41*

Amenta, F.	65	Halpern-Sebold, L.	139	Pondeljak, V.	73
Antonaci, S.	115	Hendriks, H.F.J.	241		
		Hollander, C.F.	241	Quigley, K.L.	219
Bachmann, M.	251	Honavar, M.	161		
Bernd, A.	251	Horan, M.A.	241	Reinmuller, J.	73
Beyer, R.	73				
Blondin, J.	39	Ide, T.	149	Sawada, M.	125
Bloom, E.T.	229	Jirillo, E.	115	Screibman, M.P.	139
Bond, S.L.	177			Schroder, H.C.	251
Bonomo, L.	115	Kawakami, K.	229	Singh, S.M.	177
Brouwer, A.	241	Knook, D.L.	241	Singhal, R.P.	199
				Song, M.K.	189
Carlson, J.C.	125	Lantos, P.L.	161	Sosa, Y.E.	219
Choi, Y.-S.	149			Story, C.J.	211
				Sugano, M.	149
Del Maestro, R.	29	Margolis-Nunno, H.	139		
Dempsey, J.L.	211	Mays-Hoopers, L.L.	199	Takahashi, S.	219
Durham, S.K.	241	McCarron, M.	211	Taylor, A.	39
		McDonald, W.	29	Tomari, Y.	149
Earnest, D.L.	241	Meites, J.	219	Turner, D.R.	211
Eichhorn, G.L.	199	Messer R.	251		
		Mooradian, A.D.	189	Uitterlinden, A.G.	47
Ferrante, F.	65	Morley, A.A.	211		
		Muller, W.E.G.	251	Vijg, J.	47
Gallitelli, M.	115				
Garofalo, A.R.	115	Olson, C.B.	1	Zahn, R.K.	73
Goldstein, A.L.	219	Osborne, Y.	211		
Goya, R.G.	219				



## MECHANISMS OF AGEING AND DEVELOPMENT

### SUBJECT INDEX

Volume 41 (1987)

- Acyl-CoA:cholesterol acyltransferase, age, cholestyramine, hepatic cholesterol, HMG-CoA reductase, cholesterol 7 $\alpha$ -hydroxylase, 149
- Age, cholestyramine, hepatic cholesterol, acyl-CoA:cholesterol acyltransferase, HMG-CoA reductase, cholesterol 7 $\alpha$ -hydroxylase, 149
- Ageing, Choroid plexus, epithelium, metabolism, enzyme histochemistry, 65
- Ageing, lymphocytes, proliferation, Hayflick effect, 211
- Ageing primates, brain ultrastructure, neurons, glial cells, capillaries, 161
- Age correlation, DNA alterations, DNA damage, single-strand breaks, human post-mitotic tissue, life style, single-strand-specific nuclease, 73
- Age-related response, thymus, thyrotropin, aging, TSH inhibition, 219
- Aging, B cells, immunoregulation, OKT8<sup>+</sup> subsets, T cells, 115
- Aging, DNA methylation, 5-methyl-deoxycytidine, HPLC, DNA composition, 199
- Aging, endotoxin, endotoxin elimination, subacute hypervitaminosis A, liver injury, 241
- Aging, methyl nitrosourea (MNU), unscheduled DNA synthesis (UDS), mutagenic sensitivity, background genotype, 177
- Aging, neuroendocrine, somatostatin, brain, pituitary immunocytochemistry, sexual dimorphism, platyfish, 139
- Aging, thymus, thyrotropin, TSH inhibition, age-related response, 219
- Aging, zinc absorption, Ussing chamber, prostaglandins, 189
- Asialo GM1<sup>+</sup> cells, lymphokine-activated killer (LAK) cells, natural killer (NK) cells, thy 1<sup>+</sup> cells, 229
- Background genotype, methyl nitrosourea (MNU), unscheduled DNA synthesis (UDS), aging, mutagenic sensitivity, 177
- Brain, aging, neuroendocrine, somatostatin, pituitary immunocytochemistry, sexual dimorphism, platyfish, 139
- Brain, heart and liver mitochondria, vitamin E, superoxide radical, lipid peroxidation, 125
- Brain ultrastructure, ageing primates, neurons, glial cells, capillaries, 161
- B Cells, aging, immunoregulation, OKT8<sup>+</sup> subsets, T cells, 115
- Capillaries, aging primates, brain ultrastructure, neurons, glial cells, 161
- Catalase, neonatal development, CuZn- and Mn-superoxide dismutase, glutathione peroxidase, 29
- Cholesterol 7 $\alpha$ -hydroxylase, age, cholestyramine, hepatic cholesterol, acyl-CoA:cholesterol acyltransferase, HMG-CoA reductase, 149
- Cholestyramine, age, hepatic cholesterol, acyl-CoA:cholesterol acyltransferase, HMG-CoA reductase, cholesterol 7 $\alpha$ -hydroxylase, 149
- Choroid plexus, ageing, epithelium, metabolism, enzyme histochemistry, 65
- CuZn- and Mn-superoxide dismutase, neonatal development, catalase, glutathione peroxidase, 29
- DNA alterations DNA damage, single-strand breaks, age correlation, human post-mitotic tissue, life style, single-strand-specific nuclease, 73
- DNA composition, DNA methylation, 5-methyl-deoxycytidine, HPLC, aging, 199
- DNA damage, DNA alterations, single-strand breaks, age correlation, human post-mitotic tissue, life style, single-strand-specific nuclease, 73
- DNA methylation, 5-methyl-deoxycytidine, HPLC, aging, DNA composition, 199
- Endotoxin, aging, endotoxin elimination, subacute hypervitaminosis A, liver injury, 241

- Endotoxin elimination, aging, endotoxin, subacute hypervitaminosis A, liver injury, 241
- Enzyme histochemistry, ageing, choroid plexus, epithelium, metabolism, 65
- Epithelium, ageing, choroid plexus, metabolism, enzyme histochemistry, 65
- Evolution, senescence, longevity, multifactorial, pleiotropy, repair, 1
- Glial cells, ageing primates, brain ultrastructure, neurons, capillaries, 161
- Glutathione peroxidase, neonatal development, CuZn- and Mn-superoxide dismutase, catalase, 29
- Hayflick effect, ageing, lymphocytes, proliferation, 211
- Heart and liver mitochondria, brain, vitamin E, superoxide radical, lipid peroxidation, 125
- Hen oviduct, nuclear matrix, RNA transport, ovalbumin mRNA, superoxide radical, 251
- Hepatic cholesterol, age, cholestyramine, acyl-CoA:cholesterol acyltransferase, HMG-CoA reductase, cholesterol 7 $\alpha$ -hydroxylase, 149
- HMG-CoA reductase, age, cholestyramine, hepatic cholesterol, acyl-CoA:cholesterol acyltransferase, cholesterol 7 $\alpha$ -hydroxylase, 149
- HPLC, DNA methylation, 5-methyl-deoxycytidine, aging, DNA composition, 199
- Human post-mitotic tissue, DNA alterations, DNA damage, single-strand breaks, age correlation, life style, single-strand-specific nuclease, 73
- Immunoregulation, aging, B cells, OKT8<sup>+</sup>, subsets, T cells, 115
- Life style, DNA alterations, DNA damage, single-strand breaks, age correlation, human post-mitotic tissue, single-strand-specific nuclease, 73
- Lipid peroxidation, brain, heart and liver mitochondria, vitamin E, superoxide radical, 125
- Liver injury, aging, endotoxin, endotoxin elimination, subacute hypervitaminosis A, 241
- Longevity, senescence, evolution, multifactorial, pleiotropy, repair, 1
- Lymphocytes, ageing, proliferation, Hayflick effect, 211
- Lymphokine-activated killer (LAK) cells, natural killer (NK) cells, thy 1<sup>+</sup> cells, asialo GM1<sup>+</sup> cells, 229
- Metabolism, ageing, choroid plexus, epithelium, enzyme histochemistry, 65
- 5-Methyl-deoxycytidine, DNA methylation, HPLC, aging, DNA composition, 199
- Methyl nitrosourea (MNU), unscheduled DNA synthesis (UDS), aging, mutagenic sensitivity, background genotype, 177
- Multifactorial, senescence, longevity, evolution, pleiotropy, repair, 1
- Mutagenic sensitivity, methyl nitrosourea (MNU), unscheduled DNA synthesis (UDS), aging, background genotype, 177
- Natural killer (NK) cells, lymphokine-activated killer (LAK) cells, thy 1<sup>+</sup> cells, asialo GM1<sup>+</sup> cells, 229
- Neonatal development, CuZn- and Mn-superoxide dismutase, catalase, glutathione peroxidase, 29
- Neuroendocrine, aging, somatostatin, brain, pituitary immunocytochemistry, sexual dimorphism, platyfish, 139
- Neurons, ageing primates, brain ultrastructure, glial cells, capillaries, 161
- Nuclear matrix, RNA transport, ovalbumin mRNA, superoxide radical, hen oviduct, 251
- Ovalbumin mRNA, nuclear matrix, RNA transport, superoxide radical, hen oviduct, 251
- OKT8<sup>+</sup>, aging, B cells, immunoregulation, subsets, T cells, 115
- Pituitary immunocytochemistry, aging, neuroendocrine, somatostatin, brain, sexual dimorphism, platyfish, 139
- Platyfish, aging, neuroendocrine, somatostatin, brain, pituitary immunocytochemistry, sexual dimorphism, 139
- Pleiotropy, senescence, longevity, evolution, multifactorial, repair, 1
- Proliferation, ageing, lymphocytes, Hayflick effect, 211
- Prostaglandins, zinc absorption, Ussing chamber, aging, 189
- Repair, senescence, longevity, evolution, multifactorial, pleiotropy, 1
- RNA transport, nuclear matrix, ovalbumin mRNA, superoxide radical, hen oviduct, 251
- Senescence, longevity, evolution, multifactorial, pleiotropy, repair, 1
- Sexual dimorphism, aging, neuroendocrine, somatostatin, brain, pituitary immunocytochemistry, platyfish, 139

- Single-strand-specific nuclease, DNA alterations, DNA damage, single-strand breaks, age correlation, human post-mitotic tissue, life style, 73
- Single-strand breaks, DNA alterations, DNA damage, age correlation, human post-mitotic tissue, life style, single-strand-specific nuclease, 73
- Somatostatin, aging, neuroendocrine, brain, pituitary immunocytochemistry, sexual dimorphism, platyfish, 139
- Subacute hypervitaminosis A, aging, endotoxin, endotoxin elimination, liver injury, 241
- Subsets, aging, B cells, immunoregulation, OKT8<sup>+</sup>, T cells, 115
- Superoxide radical, brain, heart and liver mitochondria, vitamin E, lipid peroxidation, 125
- Superoxide radical, nuclear matrix, RNA transport, ovalbumin mRNA, hen oviduct, 251
- Thymus, thyrotropin, aging, TSH inhibition, age-related response, 219
- Thyrotropin, thymus, aging, TSH inhibition, age-related response, 219
- Thy 1<sup>+</sup> cells, lymphokine-activated killer (LAK) cells, natural killer (NK) cells, asialo GM1<sup>+</sup> cells, 229
- TSH inhibition, thymus, thyrotropin, aging, age-related response, 219
- T cells, aging, B cells, immunoregulation, OKT8<sup>+</sup>, subsets, 115
- Unscheduled DNA synthesis (UDS), methyl nitrosourea (MNU), aging, mutagenic sensitivity, background genotype, 177
- Ussing chamber, zinc absorption, prostaglandins, aging, 189
- Vitamin E, brain, heart and liver mitochondria, superoxide radical, lipid peroxidation, 125
- Zinc absorption, Ussing chamber, prostaglandins, aging, 189









# MECHANISMS OF AGEING AND DEVELOPMENT

## VOLUME CONTENTS

Volume 41 (1987)

A review of why and how we age: A defence of multifactorial aging .....	1
C.B. Olson (Palo Alto, CA)	
Distribution of superoxide dismutase, glutathione peroxidase and catalase in developing rat brain .....	29
R. Del Maestro and W. McDonald (London, Canada)	
Measures of leucine aminopeptidase can be used to anticipate UV-induced age-related damage to lens proteins: Ascorbate can delay this damage .....	39
J. Blondin and A. Taylor (Boston, MA)	
A search for DNA alterations in the aging mammalian genome: An experimental strategy .....	47
J. Vijg and A.G. Uitterlinden (Rijswijk, The Netherlands)	
Enzyme histochemistry of the choroid plexus in old rats .....	65
F. Ferrante and F. Amenta (Rome, Italy)	
Age-correlated DNA damage in human muscle tissue .....	73
R.K. Zahn, J. Reinmüller, R. Beyer and V. Pondeljak (Mainz and Taunus, F.R.G.)	
Regulatory effects mediated by OKT <sup>+</sup> subsets on B cell response in the elderly. .	115
S. Antonaci, E. Jirillo, M. Gallitelli, A.R. Garofalo and L. Bonomo (Bari and Rome, Italy)	
Changes in superoxide radical and lipid peroxidation formation in the brain, heart and liver during the lifetime of the rat .....	125
M. Sawada and J.C. Carlson (Ontario, Canada)	
Sexually dimorphic age-related differences in the immunocytochemical distribution of somatostatin in the platyfish .....	139
H. Margolis-Nunno, M.P. Schreiber and L. Halpern-Sebold (Brooklyn, NY)	
Effects of short-term cholestyramine feeding on cholesterol metabolism in differently aged rats .....	149
Y.-S. Choi, Y. Tomari, M. Sugano and T. Ide (Fukuoka, Japan)	
Ultrastructural changes in the frontal cortex and hippocampus in the ageing marmoset .....	161
M. Honavar and P.L. Lantos (London, UK)	
Methyl nitrosourea induced unscheduled DNA synthesis <i>in vivo</i> in mice.	
Effects of background genotype on excision repair during aging .....	177
S.L. Bond and S.M. Singh (Ontario, Canada)	

The intestinal zinc transport in aged rats .....	189
A.D. Mooradian and M.K. Song (Sepulveda and Los Angeles, CA)	
DNA methylation in aging of mice .....	199
R.P. Singhal, L.L. Mays-Hoopes and G.L. Eichhorn (Baltimore, MD and Los Angeles, CA)	
Effect of age on lymphocyte proliferation .....	211
M. McCarron, Y. Osborne, C.J. Story, J.L. Dempsey, D.R. Turner and A.A. Morley (Bedford Park, South Australia)	
Immune-neuroendocrine interactions during aging: age-dependent thyrotropin-inhibiting activity of thymosin peptides .....	219
R.G. Goya, S. Takahashi, K.L. Quigley, Y.E. Sosa, A.L. Goldstein and J. Meites (East Lansing, MI and Washington, DC)	
Lymphokine-activated killer cells and aging in mice: significance for defining the precursor cell .....	229
K. Kawakami and E.T. Blom (Los Angeles, CA)	
Endotoxin-induced liver injury in aged and subacutely hypervitaminotic A rats .....	241
H.F.J. Hendricks, M.A. Horan, S.K. Durham, D.L. Earnest, A. Brouwer, C.F. Hollander and D.L. Knook (Rijswijk, The Netherlands)	
Superoxide radical-induced loss of nuclear restriction of immature mRNA: a possible cause for aging .....	251
H.C. Schröder, R. Messer, M. Bachmann, A. Bernd and W.E.G. Müller (Mainz, F.R.G.)	
Author Index Volume 41 (1987) .....	267
Subject Index Volume 41 (1987) .....	269
Volume Contents Volume 41 (1987) .....	273

